

Pronouns and demonstratives in Marshallese

The morphosyntax of person and place

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Introduction

Two languages with unusually large systems of pronouns and demonstratives:

Heiltsuk: Wakashan; data primarily from Rath (1981); discussed in Bjorkman et al. (2019)

Marshallese: Micronesian; data primarily from Bender et al. (2016); our focus today

Both have person-oriented demonstratives ('this near me', 'that near you', etc.). Following Harbour (2016: §7.3.1), we represent these using a function χ from person specifications to corresponding locations.

In Heiltsuk, not all of the language's person contrasts are used in the person-oriented demonstratives:¹

(1) Heiltsuk subject clitics	(2) Heiltsuk person-oriented demonstratives
a. = <i>nug</i> ^w (<i>a</i>) 1SG	a. <i>gáq</i> ^w 'this' (near speaker)
b. = <i>entk</i> ^w 1EXCL.PL	b. <i>qúq</i> ^w 'that' (near addressee)
c. = <i>ents</i> 1INCL.PL	c. <i>qíq</i> ^w 'that' (distal)
d. = <i>su</i> 2	
e. = <i>i</i> 3 (distal)	

- No clusivity contrast in demonstratives (no 'near you and me both' vs. 'near me but not you').
- No third-person-oriented demonstrative (no 'near them').

Bjorkman et al. treat these gaps differently:

- The absence of a clusivity contrast is accidental: just a syncretism caused by a lack of distinct VIs.
- The lack of third-person-oriented demonstratives is systematic: χ composes with an individual (type e), and third person [–author, –participant] denotes a predicate (type ⟨e,t⟩).

Marshallese doesn't have either of these gaps.

- There's a contrast between 'near you and me both' and 'near me but not you', which we predicted should be possible.
- There are forms that mean 'near them', which we didn't predict should be possible.

Plan for this talk:

1. Theoretical background
2. The data: Marshallese pronouns and demonstratives
3. Analysis of personal and demonstrative pronouns in Marshallese
4. Number
5. Conclusions and loose ends

1. The lists in (1) and (2) are not complete paradigms, but subsets showing only the person contrasts in each group of forms.

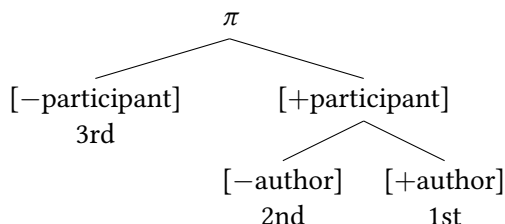
1 Theoretical background

1.1 Person features

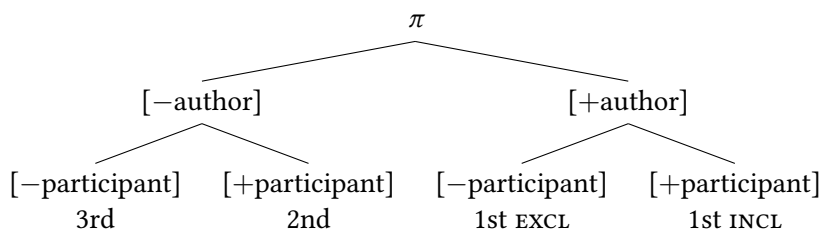
The person features we assume here are based on Harbour (2016) and Cowper and Hall (2019):

- Two binary features, $[\pm\text{author}]$ and $[\pm\text{participant}]$
- A language that uses both features has either a three- or four-way person system, depending on the features' order of application (Harbour 2016) or contrastive scope (Cowper and Hall 2019).

(3) Tripartition: $[\pm\text{participant}] \gg [\pm\text{author}]$



(4) Quadripartition: $[\pm\text{author}] \gg [\pm\text{participant}]$



- Cowper and Hall (2019): In (4), the meaning of $[\pm\text{participant}]$ narrows in accordance with its contrastive scope (=‘{includes, does not include} a discourse participant *other than the speaker*’).

1.2 Person-oriented locative deixis

- Harbour (2016: §7.3.1) proposes a head χ (<Gk. $\chi\omega\rho\omicron\varsigma$, ‘space’), which dominates π (person).
- For Harbour, the χ head takes a predicate, supplies a free variable x satisfying that predicate, and returns $\chi(x)$, the vicinity of x .
- Bjorkman et al. (2019) instead have χ take an individual rather than a predicate as its argument.
- In Heiltsuk, only first and second persons can be the anchors of person-oriented deictic pronouns and demonstratives.
- Bjorkman et al. posit that first and second person features denote individuals (‘the speaker’, ‘the addressee’), but third person denotes a predicate (‘not being either the speaker or the addressee’). If χ takes an individual as input, this explains the absence of third-person-oriented deictics.
- But Marshallese poses a challenge to this approach. Bjorkman et al. (2019: p. 586, fn. 17):

Marshallese is described by Bender et al. (2016) as having a demonstrative meaning ‘near someone else / a third party’, but the examples given in the text would be equally consistent with a meaning ‘proximate, though near neither me nor you’. Further investigation would be needed to confirm whether this demonstrative indeed specifically expresses proximity to a third person; if it does, this might reflect a different semantics for third persons in Marshallese.

1.3 A question: Why is Marshallese different from Heiltsuk?

Informally, the difference between the two systems is that in Marshallese, the person-oriented demonstratives look like a separate system that adds a locative element (χ) to the full set of contrasts found in the personal pronoun paradigm, while in Heiltsuk, the person-oriented demonstratives look like a subset of the third-person part of the pronoun paradigm.

In Heiltsuk, all the third-person pronominal forms encode deictic information:

(5) Heiltsuk pronominal clitics (Rath 1981: 77)

		SUBJECT	OBJECT	
1st	sg.	= <i>nug</i> ^w (<i>a</i>)	= <i>ent</i> †(<i>a</i>)	
1st	incl.	= <i>ents</i>	= <i>ent</i> † <i>ents</i>	
1st	excl.	= <i>entk</i> ^w , = <i>entx</i> ^w	= <i>ent</i> † <i>entk</i> ^w , = <i>ent</i> † <i>entx</i> ^w	
2nd		= <i>su</i> , = <i>tsu</i>	= <i>ut</i> †(<i>a</i>)	
3rd	I	= <i>k</i> ^(w) , = <i>x</i> ^(w)	= <i>qk</i> , = <i>qx</i>	(here with me)
3rd	II	= <i>k</i> ^(w) <i>ts</i> , = <i>x</i> ^(w) <i>ts</i>	= <i>qkts</i> , = <i>qxts</i>	(here with me, invisible)
3rd	III	= <i>uq</i> ^w , = <i>ux</i> ^w , = <i>u</i>	= <i>q</i> ^w	(there with you)
3rd	IV	= <i>uχ</i> ^w <i>ts</i>	= <i>q</i> ^w <i>ts</i>	(there with you, invisible)
3rd	V	= <i>i</i>	= <i>qi</i>	(over there / under discussion)
3rd	VI	= <i>its</i>	= <i>qits</i>	(over there / under discussion, invisible)
3rd	VII	= <i>k</i> ^(w) <i>i</i>	= <i>qki</i>	(absent / gone)

In Marshallese, the pronominal paradigm doesn't encode location:

(6) Marshallese subject markers (prefixes/clitics; Bender et al. 2016: 151)

	SINGULAR	PLURAL
1st excl.	<i>i-</i>	<i>kōm-</i>
1st incl.	—	<i>je-</i>
2nd	<i>kwo-</i>	<i>koṃ-</i>
3rd	<i>e-</i>	<i>re-</i>

And the demonstratives include forms marking proximity to each of the four persons distinguished in the pronominal paradigm:

(7) Marshallese 'Basic' demonstratives (non-emphatic forms only; Bender et al. 2016: 179)

	SINGULAR	PLURAL	
		NON-HUMAN	HUMAN
Near: 1st excl.	<i>e</i>	<i>kā</i>	<i>rā</i>
1st incl.	<i>in</i>	<i>kein</i>	<i>rein</i>
2nd	<i>ṇe</i>	<i>kaṇe</i>	<i>raṇe</i>
3rd	<i>eṇ</i>	<i>kaṇ</i>	<i>raṇ</i>
Remote	<i>eo</i>	<i>ko</i>	<i>ro</i>

1.4 Number

- Marshallese is sometimes described (e.g., Corbett 2000) as having a five-way number system (singular, dual, trial, quadral/paucal, and plural/multiple).

(8) Absolute pronouns, all numbers (Bender et al. 2016: 172–173)

	SINGULAR	GENERAL NON-SINGULAR	DUAL	TRIAL	QUADRAL OR PAUCAL	MULTIPLE
1st excl.	<i>ña</i>	<i>kōm</i>	<i>kōmro</i>	<i>kōmjeel</i>	<i>kōm(je)eañ</i>	<i>kōmwōj</i>
1st incl.	—	<i>kōj</i>	<i>kōjro</i>	<i>kōjjeel</i>	<i>kōjeañ</i>	<i>kōjwōj</i>
2nd	<i>kwe</i>	<i>koṃ</i>	<i>koṃro</i>	<i>koṃjeel</i>	<i>koṃ(je)eañ</i>	<i>koṃwōj</i>
3rd	<i>e</i>	<i>er</i>	<i>erro</i>	<i>erjeel</i>	<i>er(je)eañ</i>	<i>erwōj</i>

- But the more fine-grained distinctions are not obligatory: only the contrast between singular and non-singular is consistently marked, and the other numbers are (in Corbett’s term) ‘facultative’.
- Are the facultative number distinctions part of the grammatical number feature system?
- We’ll argue that Marshallese *grammatical* number uses a single privative feature ATOMIC, and that the additional distinctions are non-inflectional (in the sense of Wiltschko 2008).

2 The data: Marshallese pronouns and demonstratives

Marshallese pronouns: Bender et al. (2016) show three sets: personal pronouns, interrogative pronouns, and demonstrative pronouns. We set interrogative pronouns aside (they exhibit no person contrasts, and shed no light on the questions we focus on here).

2.1 Personal pronouns

(9) Absolute pronouns (human referents only)

	SINGULAR	PLURAL
1st excl.	<i>ña</i>	<i>kōm</i>
1st incl.	—	<i>kōj</i>
2nd	<i>kwe</i>	<i>koṃ</i>
3rd	<i>e</i>	<i>er</i>

(Bender et al. 2016: 172)

(10) Subject markers (prefixes/clitics)

	SINGULAR	PLURAL
1st excl.	<i>i-</i>	<i>kōm-</i>
1st incl.	—	<i>je-</i>
2nd	<i>kwo-</i>	<i>koṃ-</i>
3rd	<i>e-</i>	<i>re-</i>

(Bender et al. 2016: 151)

Bender et al. treat these as agreement markers on the verb.

- Like Heiltsuk:
 - Quadripartition
 - No gender marking
- Unlike Heiltsuk:
 - Number contrast: singular vs. plural
 - No location contrasts in the third person

2.2 Possessive suffixes

- (11) Suffixes marking inalienable possession

	SINGULAR	PLURAL
1st excl.	<i>-hi</i>	<i>-m</i>
1st incl.	—	<i>-d</i>
2nd	<i>-ŋ</i>	<i>-miy</i>
3rd	<i>-n</i>	<i>-yyer</i>

(Bender et al. 2016: 124)

(Alienable possession is structurally complex, but uses the same suffixes as inalienable possession.)

Looks like a fairly straightforward quadripartition system. But...

2.3 Demonstrative pronouns

Four subtypes, named as follows by Bender et al. (2016):

1. **Basic** demonstratives: Appear only as predicates in verbless equational sentences
2. **Focus** demonstratives: Appear as subjects of verbless equational sentences
3. **Personal** demonstratives: Can refer only to human beings; function as ordinary arguments
4. **Locative** demonstratives: Denote locations, can take a prefixed preposition meaning ‘at, in’

Each of the four types includes 18, 27, or 36 forms, subdivided by orientation, by properties of the referent, and by a [\pm emphatic] feature. There are 108 forms in all.

- The orientation features correspond to the full person quadripartition, along with a fifth form glossed by Bender et al. as ‘remote’. They are marked on all four types of demonstratives.
- All except the inclusive-oriented ones have both [+emphatic] and [–emphatic] versions.
- Properties of the referent:
 - **Singular vs. plural**: Marked on all four types
 - **Masculine vs. feminine**: Marked only on Personal demonstratives, which only refer to human beings. Gender is marked in both singular and plural
 - **Human vs. non-human**: Marked on Basic and Focus demonstratives, but only in the plural. Locative demonstratives have the same marking as non-human versions of the other two types

2.4 Demonstrative determiners

These are identical in form to the Basic demonstrative pronouns, with all the same distinctions marked. They appear postnominally. The non-emphatic remote demonstrative determiner is glossed as ‘the’.

(12) Basic demonstratives (predicates in verbless copular sentences, also used adnominally)

	NON-EMPHATIC			EMPHATIC		
	SINGULAR	PLURAL		SINGULAR	PLURAL	
		NON-HUMAN	HUMAN		NON-HUMAN	HUMAN
Near: 1st excl.	<i>e</i>	<i>kā</i>	<i>rā</i>	<i>iiō</i>	<i>kākā</i>	<i>rārā</i>
1st incl.	<i>in</i>	<i>kein</i>	<i>rein</i>	—	—	—
2nd	<i>ṇe</i>	<i>kaṇe</i>	<i>raṇe</i>	<i>ṇeṇe</i>	<i>kākaṇe</i>	<i>rāraṇe</i>
3rd	<i>eṇ</i>	<i>kaṇ</i>	<i>raṇ</i>	<i>eṇ</i>	<i>kākaṇ</i>	<i>rāraṇ</i>
Remote	<i>eo</i>	<i>ko</i>	<i>ro</i>	<i>iuweo</i>	<i>koko</i>	<i>roro</i>

(Bender et al. 2016: 179)

(We're not sure why there's a gap in the emphatic near-first-person-inclusive tranche of these paradigms. It's not clear from Bender et al. whether this indicates ineffability or perhaps a syncretism with near-first-person-exclusive.)

(13) Focus demonstratives (subjects in verbless copular sentences)

	NON-EMPHATIC			EMPHATIC		
	SINGULAR	PLURAL		SINGULAR	PLURAL	
		NON-HUMAN	HUMAN		NON-HUMAN	HUMAN
Near: 1st excl.	<i>eṇe / iōōe</i>	<i>erkā</i>	<i>errā</i>	<i>eñō / iiō</i>	<i>erkākā</i>	<i>errārā</i>
1st incl.	<i>eñin / iin</i>	<i>erkein</i>	<i>errein</i>	—	—	—
2nd	<i>eñṇe / ieṇe</i>	<i>erkaṇe</i>	<i>erraṇe</i>	<i>eñṇeṇe / ieṇeṇe</i>	<i>erkākaṇe</i>	<i>errāraṇe</i>
3rd	<i>eñeṇ / ieeṇ</i>	<i>erkaṇ</i>	<i>erraṇ</i>	<i>eñieṇ</i>	<i>erkākaṇ</i>	<i>errāraṇ</i>
Remote	<i>eñeo / ieo</i>	<i>erko</i>	<i>erro</i>	<i>eñuweo / euwoo</i>	<i>erkoko</i>	<i>erroro</i>

(Bender et al. 2016: 179)

(14) Personal demonstratives (refer only to human beings, behave like arguments)

	NON-EMPHATIC				EMPHATIC			
	SINGULAR		PLURAL		SINGULAR		PLURAL	
	MASC.	FEM.	MASC.	FEM.	MASC.	FEM.	MASC.	FEM.
Near: 1st excl.	<i>lōe</i>	<i>lie</i>	<i>lōmarā</i>	<i>liṃarā</i>	<i>leiō</i>	<i>liiō</i>	<i>lōmarārā</i>	<i>liṃarārā</i>
1st incl.	<i>lein</i>	<i>liin</i>	<i>lōmarein</i>	<i>liṃarein</i>	—	—	—	—
2nd	<i>lōṇe</i>	<i>liṇe</i>	<i>lōmarāṇe</i>	<i>liṃarāṇe</i>	<i>lōṇeṇe</i>	<i>liṇeṇe</i>	<i>lōmarārāṇe</i>	<i>liṃarārāṇe</i>
3rd	<i>leeṇ</i>	<i>lieṇ</i>	<i>lōmaraṇ</i>	<i>liṃaraṇ</i>	<i>leiṇ</i>	<i>liieṇ</i>	<i>lōmarārāṇ</i>	<i>liṃarārāṇ</i>
Remote	<i>leo</i>	<i>lio</i>	<i>lōmaro</i>	<i>liṃaro</i>	<i>louweo</i>	<i>luweo</i>	<i>lōmaroro</i>	<i>liṃaroro</i>

(Bender et al. 2016: 179)

- (15) Locative demonstratives (refer to places, may or may not be marked with the preposition *i* ‘in, at’)

	NON-EMPHATIC		EMPHATIC	
	SINGULAR	PLURAL	SINGULAR	PLURAL
Near: 1st excl.	<i>(i)je</i>	<i>(i)jekā</i>	<i>(i)jiiō</i>	<i>(i)jekākā</i>
1st incl.	<i>(i)jin</i>	<i>(i)jekein</i>	—	—
2nd	<i>(i)jeṇe</i>	<i>(i)jekāṇe</i>	<i>(i)jeṇe</i>	<i>(i)jekāṇe</i>
3rd	<i>(i)jeṇ</i>	<i>(i)jekāṇ</i>	<i>(i)jieṇ</i>	<i>(i)jekākāṇ</i>
Remote	<i>(i)jo</i>	<i>(i)jeko</i>	<i>(i)juweo</i>	<i>(i)jekoko</i>

(Bender et al. 2016: 179)

3 Analysis of personal and demonstrative pronouns in Marshallese

3.1 Preliminary observations

- Marshallese has a contrast between ‘near 1.INCL’ and ‘near 1.EXCL’ (except in the emphatic forms). We conclude that Bjorkman et al. (2019) were right to treat the absence of such a contrast in Heiltsuk as the result of a syncretism, rather than deriving it from some deeper principle.
- Unlike in Heiltsuk, Marshallese χ can apparently compose with third person. Bjorkman et al. (2019) claim that (at least in Heiltsuk) [–author, –participant] yields type $\langle e, t \rangle$, while discourse participants are type *e*. This rules out third-person orientation—contrary to fact in Marshallese.

Three possible approaches to explaining this difference between the two languages:

- Third person in Marshallese is different from third person in Heiltsuk. If [–author, –participant] yields type *e* in Marshallese, then third-person-oriented demonstratives would be expected.
 - χ works differently in Marshallese, perhaps occupying a structurally higher position, after some other element—perhaps definiteness—has converted a third-person $\langle e, t \rangle$ to *e*.
 - The third-person-oriented demonstratives are really just proximal (but not proximal *to* any specific individual). This isn’t how Bender et al. (2016) describe them, but they also don’t give clear examples showing that these forms locate their referents with respect to specific third persons.
- Some of the demonstratives, namely the Basic type, seem to have predicative meaning. It seems non-coincidental that this is the class that can also function as determiners, taking a nominal argument.
 - It’s intriguing that the $[\pm\text{human}]$ distinction is marked only in the plural. This runs counter to many well-known paradigms (e.g., Russian pronouns and past-tense verbs, French determiners), where gender marking appears only in the singular.

Universal 37. A language never has more gender categories in non-singular numbers than in the singular (Greenberg 1963: 75, 90).

- The features and structural properties of the dual, trial, and quadral/paucal need to fit in somewhere. The fact that the facultative number markers are affixed to the plural rather than the singular form should also be explained.

3.2 Marshallese personal pronouns

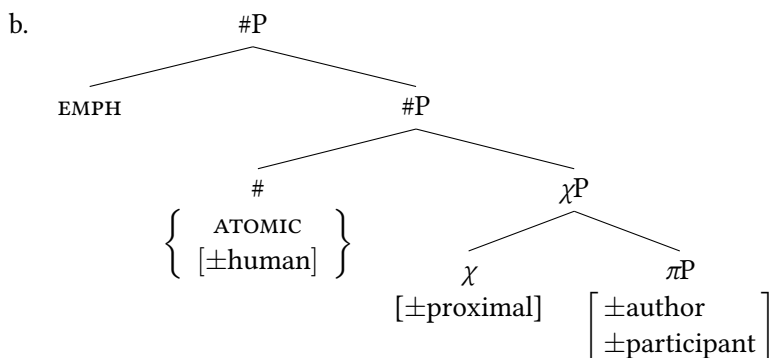
We assume that the personal pronouns contain at least a πP , specified with the features $[\pm\text{author}]$ and $[\pm\text{participant}]$. $[\pm\text{Author}]$ takes contrastive scope over $[\pm\text{participant}]$, giving the person quadripartition.

Since the inclusive pronoun *kōj* patterns with the plurals, not the singulars, we assume, following Harbour (2008, 2016), that the singular–plural contrast in Marshallese is encoded by the feature `ATOMIC`, not by `MINIMAL`.

3.3 Proposed structure of Basic demonstratives

We claim that the basic demonstratives are $\#\text{P}$ s, and are semantically predicates. The phonological forms follow the template in (16a), and the syntactic structure in (16b).

(16) a. (EMPH) – `ATOMIC`/ $[\pm\text{human}]$ – $\chi+\pi$



- When χ is specified as $[-\text{proximal}]$, it does not select a complement. This gives the ‘remote’ form, which seems to behave as the default for χP .
- When χ is $[\text{+proximal}]$, it takes a complement (shown as πP in (16b), but possibly including another head that converts third-person πP s to type e), giving the four person-oriented versions of the demonstrative.
- While $[\pm\text{human}]$, $[\pm\text{proximal}]$, and the person features $[\pm\text{author}]$ and $[\pm\text{participant}]$ are binary, we claim that the number feature `ATOMIC` is contrastive and privative. The absence of the feature thus gives an interpretation of *non-atomic*.
- **We propose that the # head must be specified for exactly one feature.** Since `ATOMIC` is privative, this gives exactly three possible outcomes:
 - `ATOMIC` (singular, unspecified for human/nonhuman)
 - $[\text{+human}]$ (human, contrastively non-atomic and therefore plural)
 - $[-\text{human}]$ (nonhuman, contrastively non-atomic and therefore plural)
- The emphatic feature `EMPH` is a syntactic adjunct to $\#\text{P}$ and doesn’t affect its semantic type. We have no specific evidence about whether it is binary or privative, or indeed whether it is contrastive in the formal sense. We assume that the emphatic form is marked relative to the non-emphatic form, and leave further details on the semantics of this element for future work.

Vocabulary items found in Basic (and other) demonstratives

(17) Vocabulary items realizing #P

- # $\Leftrightarrow \emptyset$
[ATOMIC]
- # $\Leftrightarrow ra$
[+human]
- # $\Leftrightarrow ka$
[-human]
- EMPH $\Leftrightarrow CV_{RED}$

(18) Vocabulary items realizing χ^P

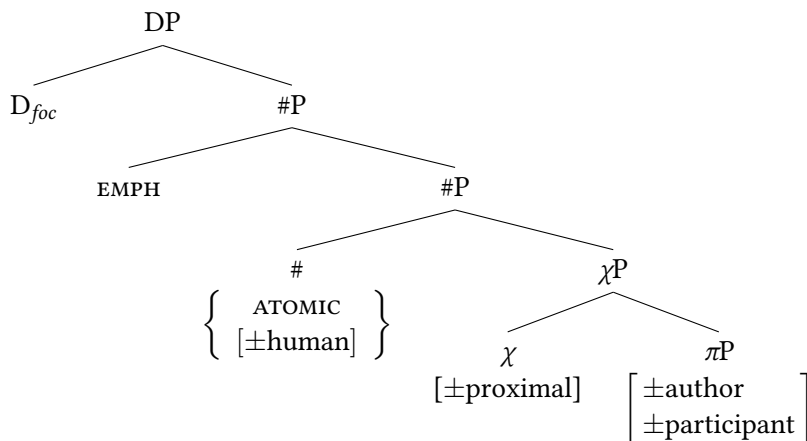
- Near 1.EXCL: χ π $\Leftrightarrow e$
[+proximal] [+author
-participant]
- Near 1.INCL: χ π $\Leftrightarrow in$
[+proximal] [+author
+participant]
- Near 2nd: χ π $\Leftrightarrow ne$
[+proximal] [-author
+participant]
- Near 3rd: χ π $\Leftrightarrow en$
[+proximal] [-author
-participant]
- Remote: χ $\Leftrightarrow eo$
[-proximal]

3.4 Proposed structure of Focus demonstratives

- Focus demonstratives, like all the other demonstratives, are built from the Basic demonstratives.
- We propose that the only difference between Focus and Basic demonstratives is that the Focus demonstratives are DPs, of semantic type e.
- The D agrees in number with its complement #P, and precedes the emphatic marker
- Recall that these demonstratives appear as the subjects of verbless copular clauses.
- The phonological form follows the template in (19a), and the structure is given in (19b).

(19) a. $D_{foc} - (EMPH) - ATOMIC / [\pm human] - \chi + \pi$

b.



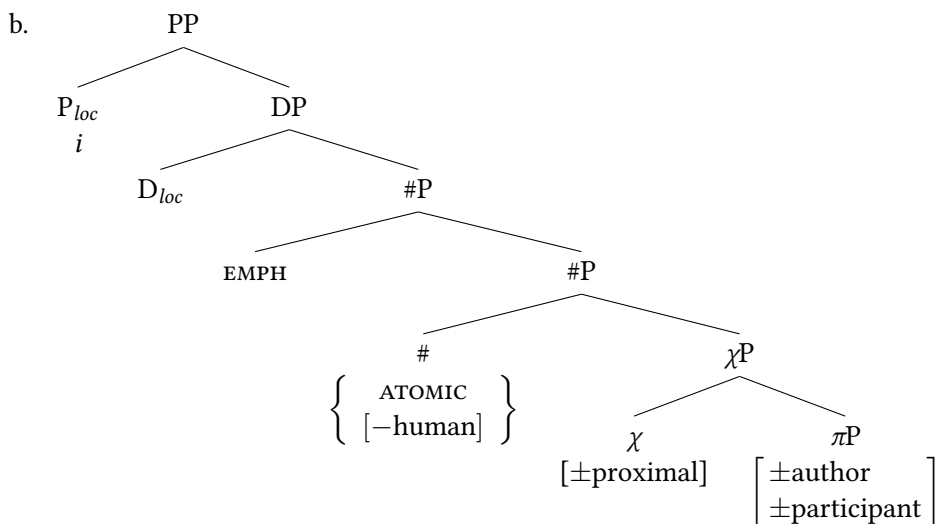
(20) Vocabulary items specific to focus demonstratives

- $D_{foc} \Leftrightarrow eñ$ (or *ii*) / ATOMIC
- $\Leftrightarrow er$ / elsewhere

3.5 Proposed structure of Locative demonstratives

- Structurally similar to Focus demonstratives, but with a different determiner, D_{loc}
- Without the prepositional element i ‘in, at’, they denote a location
- With i , they form a PP denoting the property of being at or in the location denoted by DP_{loc}
- Since locations are nonhuman, $\#P$ takes the same plural form as the nonhuman basic demonstratives

(21) a. (P) – D_{loc} – (EMPH) – ATOMIC/[–human] – $\chi^+\pi$



(22) Vocabulary items specific to locative demonstratives

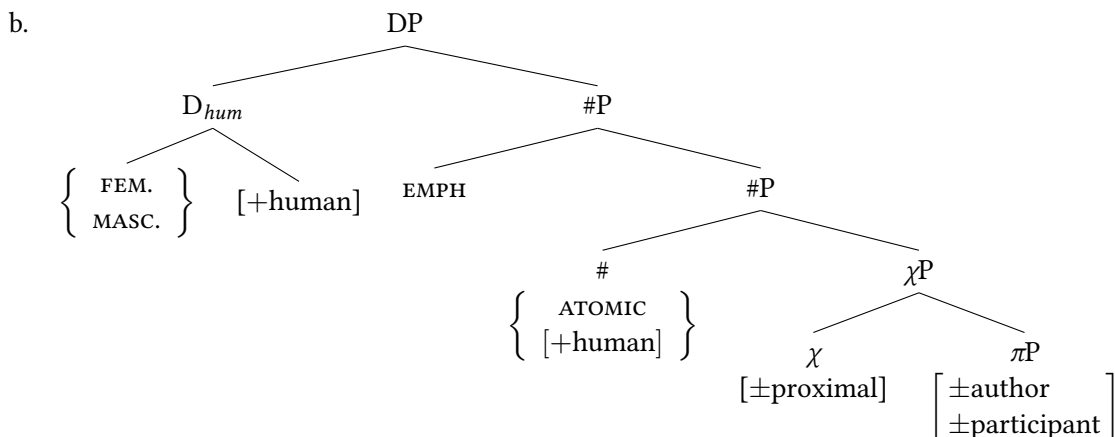
$D_{loc} \Leftrightarrow je$

$P_{loc} \Leftrightarrow i$

3.6 Proposed structure of Personal demonstratives

- Personal demonstratives are of semantic type e.
- They are marked for binary gender in both singular and plural
- Since they can only refer to human beings, $\#P$ takes the same plural form as the human basic demonstratives
- In the plural, they also have a (redundant) prefix $ma-$ between the gender marker and the $\#P$.
- We propose that human demonstratives have a special D_{hum} , and that $ma-$ spells out agreement with the feature $[+human]$ in the $\#$ head. (Recall that $[\pm human]$ is present on $\#$ only when ATOMIC is absent; i.e., in the plural.)

(23) a. M/F – ma/∅ – (EMPH) – ATOMIC/[+human] – χ+π



(24) Vocabulary items specific to personal demonstratives, spelling out D_{hum}

- FEMININE ⇔ *li*
- MASCULINE ⇔ *lo*
- [+human] ⇔ *ma* / [+human]
- ⇔ ∅ / elsewhere

(The binary gender prefixes *li-* and *la-* are also used in proper names and in descriptive nicknames such as *Ḷakkadudu* ‘Shorty (MASC.)’ < *kadu* ‘be short’ (Bender et al. 2016: 120–121).)

4 Number

4.1 Facultative number

The demonstratives show only a two-way number contrast, singular (ATOMIC) versus non-singular. Personal pronouns, however, can optionally be marked for more specific non-singular numbers:

(25) Facultative number marking on absolute pronouns (Bender et al. 2016: 172–173)

	SINGULAR	GENERAL NON-SINGULAR	DUAL	TRIAL	QUADRAL OR PAUCAL ²	MULTIPLE
1st excl.	<i>ña</i>	<i>kōm</i>	<i>kōmro</i>	<i>kōmjeel</i>	<i>kōm(je)eañ</i>	<i>kōmwōj</i>
1st incl.	—	<i>kōj</i>	<i>kōjro</i>	<i>kōjjeel</i>	<i>kōjeañ</i>	<i>kōjwōj</i>
2nd	<i>kwe</i>	<i>koṃ</i>	<i>koṃro</i>	<i>koṃjeel</i>	<i>koṃ(je)eañ</i>	<i>koṃwōj</i>
3rd	<i>e</i>	<i>er</i>	<i>erro</i>	<i>erjeel</i>	<i>er(je)eañ</i>	<i>erwōj</i>

The elements that mark dual, trial, quadral/paucal, and multiple...

- ...are consistent and readily segmentable;
- ...are suffixed to the general non-singular forms;
- ...and, as Bender et al. (2016: 173) point out, mostly seem to be derived from numerals.

2. Corbett (2000: 29–30), citing Bender (1969: 159), says that the quadral is used with groups of more than four “rhetorically to give an illusion of intimacy,” and therefore calls it a paucal.

(26) Sources of facultative number marking (Bender et al. 2016: 173, Table 4–2)

NUMBER	SUFFIX	LEXICAL WORD	GLOSS
dual	-ro	ruo	‘two’
trial	-jeel	jilu	‘three’
quadral/paucal	-(je)eañ	emān	‘four’
multiple	-wōj	eṃlapwōj	‘large community house for extended family of chief and retinue’

Bhat (2004: 99–100), citing Zewen (1977: 50), calls the pronouns with facultative number marking ‘collective’ as distinct from ‘plural’, and suggests that the plural forms without such marking have number only by implication. For Bhat, the plurality of these forms follows from the fact that they specify combinations of multiple persons (1 + 3, 1 + 2(+3), or 2 + 3).

But the demonstratives (which all have third-person reference, though they can have first- or second-person anchors) also show a consistent singular/non-singular contrast. Here’s our interpretation:

Singular forms have a privative grammatical feature *ATOMIC*.

Non-singular forms contrastively lack *ATOMIC*.

Facultative dual, trial, paucal, and multiple involve optional modification of the non-singular forms.

The suffixes marking facultative number are like optional plural marking in Halkomelem (Wiltschko 2008). Their absence is non-contrastive. (Indeed, what could the unmarked plural forms mean if they were contrastively non-dual, non-trial, non-paucal, and non-multiple as well as contrastively non-singular?)

4.2 Valency and markedness

The treatment of *ATOMIC* as privative is essential to our story about why the human/non-human distinction is marked on plural demonstratives but not on singular ones. If *ATOMIC* is privative and $[\pm\text{human}]$ is binary, then the range of attested forms follows from the single stipulation that the # head can contain only one marked feature: *ATOMIC*, $[-\text{human}]$, or $[\text{+human}]$.

Cowper and Hall (2014) argue that it should in principle be possible to have both privative and binary features in a single system, as each type of feature is independently motivated. Here, we seem to have an example of a system that needs to combine the two.

Our use of privative *ATOMIC* implies that non-singular is the featurally unmarked number, even though some plural forms look morphologically marked. In our analysis, the VIs *ra-* and *ma-* spell out only $[\text{+human}]$, and *ka-* spells out only $[-\text{human}]$, although each of them occurs only in non-singular forms.

Some independent support for the proposition that plural is the unmarked number comes from noun phrases. Bare nouns are interpreted as indefinite plurals, whereas indefinite singulars are marked with *juon* (the numeral ‘one’, which also serves as an indefinite singular determiner; Provencher 2012: 14).

(27) Number and definiteness (adapted from Provencher 2012: 14, 18; Willson 2008: 58, 59)

- | | |
|-------------------------------|----------------------------|
| a. i. <i>juon kijdik</i> | ii. <i>kijdik</i> |
| a/one rat | rat |
| ‘a rat’ (indefinite singular) | ‘rats’ (indefinite plural) |

- | | |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| b. i. <i>leddik ro</i>
girl NON-PROX.NON-SG.HUM.BASIC.DEM
‘the girls’ (definite plural) | ii. <i>leddik</i>
girl
‘girls’ (indefinite plural) |
| c. i. <i>juon kuuj</i>
a/one cat
‘a cat’ (indefinite singular) | ii. <i>kuuj eo</i>
cat NON-PROX.SG.BASIC.DEM
‘the cat’ (definite singular) |

5 Conclusions and loose ends

- We have presented a preliminary account of the features and contrasts involved in Marshallese pronouns and demonstratives.
- We have shown an empirical application of the difference between contrastive privative and binary features, thus providing support for the view that UG should permit both types of features, even in the same language or the same grammatical system (here, the nominal system).
- We have noted, though not provided an explicit account of, the absence of third-person-oriented (pronouns and) demonstratives in Heiltsuk and their presence in Marshallese. It looks as if χ in Marshallese, rather than combining directly with π bundles as in Heiltsuk, composes with π features that have already been made into type e. (Either that or third persons in Marshallese are of a different semantic type than in Heiltsuk.)
- We have argued that grammatical number in Marshallese is encoded by the privative feature ATOMIC. This has several consequences:
 - Inclusives in Marshallese, since they are by definition not atomic, pattern with plurals.
 - Plurality is characterized by the absence of the feature ATOMIC. Therefore, the suffixes *-ra* and *-ka* are not semantically conditioned allomorphs of a plural marker; rather they are simply markers of [+human] and [−human].
 - In line with Corbett (2000), Bender (1969), and Bender et al. (2016), we take facultative number to be marked by optional adjuncts that are not part of the contrastive number feature system.
 - We predict that so-called plurals should exhibit evidence of lacking number marking entirely. This seems to be correct:
 - The “plural” form of the pronoun is the base to which adjunct number marking is added.
 - While nouns seem to lack number marking, it seems from the discussion in Provencher (2012: 14) that full DPs require a singular determiner in order to be interpreted as singular; bare nouns receive an indefinite plural interpretation.
- Our analysis relies on a stipulation of a sort we have not seen proposed elsewhere: that the # head must bear exactly one feature (in this case, one of ATOMIC, [+human], [−human]).
 - The stipulation is reminiscent of informal observations that there seem sometimes to be limits on the overall featural complexity of a given head.
 - It allows Marshallese to be, albeit subtly, compatible with a slightly updated version of Greenberg’s (1963) Universal 37: A language never has more gender categories in **marked** nonsingular numbers than in the singular.

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